

**NANOCOMPOSITE COMPRISING STABILIZATION
FUNCTIONALIZED THERMOPLASTIC POLYOLEFINS**

ABSTRACT

- 5 This invention relates to nanocomposites comprising organo-clay and at least one stabilization functionalized thermoplastic polyolefin. Preferably the stabilization functionalized thermoplastic polyolefin is represented by the formula:



Wherein

- 10 T represents the thermoplastic polyolefin
- Each R^1 is a bridging group, preferably independently selected from the group consisting of C_1 to C_{20} aliphatic; C_1 to C_{20} aromatic; substituted C_1 to C_{20} aliphatic; substituted C_1 to C_{20} aromatic; C_1 to C_{20} aliphatic ester; C_1 to C_{20} aliphatic ether; C_1 to C_{20} aliphatic amide; C_1 to C_{20} aliphatic imide;
- 15 n is the number of stabilization functional/bridging groups bound to T and may be from 1-300; and
- G is selected from one or more of phenols, ketones, hindered amines, substituted phenols, substituted ketones, substituted hindered amines, or combinations thereof.